

**STATE OF UTAH CONTRACT**

1. **CONTRACTING PARTIES:** This contract is between the following agency of the State of Utah:
Department: TRANSPORTATION Agency Code: 810 Division: UDOT-CENTRAL SHOPS, referred to as (STATE), and the following CONTRACTOR:

SAFETY SUPPLY & SIGN**LEGAL STATUS OF CONTRACTOR**

Name
3200 S. REDWOOD RD.
Address
WEST VALLEY CITY UT 84119
City State Zip

- ☐ Sole Proprietor
☐ Non-Profit Corporation
☒ For-Profit Corporation
☐ Partnership
☐ Government Agency

Contact Person KELLY MATKIN Phone #801 973-2266 Email kelly@safetysupplyandsign.com
Federal Tax ID# 870286845 Vendor #31818e Commodity Code #55096000000

2. **GENERAL PURPOSE OF CONTRACT:** The general purpose of this contract is to provide:
TRAILER MOUNTED, SOLAR AND BATTERY POWERED MESSAGE BOARD SIGNS.
3. **PROCUREMENT:** This contract is entered into as a result of the procurement process on RX#
810 56300000004, FY2004, Bid#PM5016.
4. **CONTRACT PERIOD:** Effective date: 09/15/04 Termination date: 09/15/06 unless terminated early or extended in accordance with the terms and conditions of this contract. Renewal options (if any): (3) - 1 YEAR RENEWALS
5. **CONTRACT COSTS:** CONTRACTOR will be paid as per the price list bid for costs authorized by this requirements contract.
6. **ATTACHMENT A:** Division of Purchasing's Standard Terms and Conditions
ATTACHMENT B: Specifications
ATTACHMENT C: Pricing
Any conflicts between Attachment A and other Attachments will be resolved in favor of Attachment A.
7. **DOCUMENTS INCORPORATED INTO THIS CONTRACT BY REFERENCE BUT NOT ATTACHED:**
a. All other governmental laws, regulations, or actions applicable to the goods and/or services authorized by this contract.
b. Utah State Procurement Code, Procurement Rules, and CONTRACTOR'S response to Bid #PM5016 dated 08/30/04.

IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONTRACTOR

STATE

Contractor's signature

Date

Agency's signature

Date

Type of Print Name and Title

Director, Division of Purchasing

Date

Director, Division of Finance

Paul Rottmann

801-965-4078

801-965-4073

prottmann@utah.gov

Agency Contact Person

Telephone Number

Fax Number

Email

(Revision 09/30/2003)

ENT'D FEB 22 2005

JUL 22 2005

ATTACHMENT A: STANDARD TERMS AND CONDITIONS

1. **AUTHORITY:** Provisions of this contract are pursuant to the authority set forth in 63-56, Utah Code Annotated, 1953, as amended, Utah State Procurement Rules (Utah Administrative Code Section R33), and related statutes which permit the State to purchase certain specified services, and other approved purchases for the State.
2. **CONTRACT JURISDICTION, CHOICE OF LAW, AND VENUE:** The provisions of this contract shall be governed by the laws of the State of Utah. The parties will submit to the jurisdiction of the courts of the State of Utah for any dispute arising out of this Contract or the breach thereof. Venue shall be in Salt Lake City, in the Third Judicial District Court for Salt Lake County.
3. **LAWS AND REGULATIONS:** Any and all supplies, services and equipment furnished will comply fully with all applicable Federal and State laws and regulations.
4. **RECORDS ADMINISTRATION:** The Contractor shall maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the Contractor for costs authorized by this contract. These records shall be retained by the Contractor for at least four years after the contract terminates, or until all audits initiated within the four years, have been completed, whichever is later. The Contractor agrees to allow State and Federal auditors, and State Agency Staff, access to all the records to this contract, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.
5. **CONFLICT OF INTEREST:** Contractor represents that none of its officers or employees are officers or employees of the State of Utah, unless disclosure has been made in accordance with 67-16-8, Utah Code Annotated, 1953, as amended.
6. **CONTRACTOR, AN INDEPENDENT CONTRACTOR:** The Contractor shall be an independent contractor, and as such, shall have no authorization, express or implied, to bind the State to any agreements, settlements, liability, or understanding whatsoever, and agrees not to perform any acts as agent for the State, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to the Contractor by the State. The Contractor shall be responsible for the payment of all income tax and social security amounts due as a result of payments received from the State for these contract services. Persons employed by the State and acting under the direction of the State shall not be deemed to be employees or agents of the Contractor.
7. **INDEMNITY CLAUSE:** The Contractor agrees to indemnify, save harmless, and release the State OF UTAH, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising out of the performance of this contract which are caused in whole or in part by the negligence of the Contractor's officers, agents, volunteers, or employees, but not for claims arising from the State's sole negligence.
8. **EQUAL OPPORTUNITY CLAUSE:** The Contractor agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. Also, the Contractor agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the work place.
9. **SEPARABILITY CLAUSE:** A declaration by any court, or any other binding legal source, that any provision of this contract is illegal and void shall not affect the legality and enforceability of any other provision of this contract, unless the provisions are mutually dependent.
10. **RENEGOTIATION OR MODIFICATIONS:** This contract may be amended, modified, or supplemented only by written amendment to the contract, executed by the same persons or by persons holding the same position as persons who signed the original agreement on behalf of the parties hereto, and attached to the original signed copy of the contract.
11. **DEBARMENT:** The Contractor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract), by any governmental department or agency. If the Contractor cannot certify this statement, attach a written explanation for review by the State. The Contractor must notify the State Director of Purchasing within 30 days if debarred by any governmental entity during the Contract period.
12. **TERMINATION:** Unless otherwise stated in the Special Terms and Conditions, this contract may be terminated, with cause by either party, in advance of the specified termination date, upon written notice being given by the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the contract may be terminated for cause. This contract may be terminated without cause, in advance of the specified expiration date, by either party, upon 90 days prior written notice being given the other party. On termination of this contract, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.
13. **NONAPPROPRIATION OF FUNDS:** The Contractor acknowledges that the State cannot contract for the payment of funds not yet appropriated by the Utah State Legislature. If funding to the State is reduced due to an order by the Legislature or the Governor, or is required by State law, or if federal funding (when applicable) is not provided, the State may terminate this contract or proportionately reduce the services and purchase obligations and the amount due from the State upon 30 days written notice. In the case that funds are not appropriated or are reduced, the State will reimburse Contractor for products delivered or services performed through the date of cancellation or reduction, and the State will not be liable for any future commitments, penalties, or liquidated damages.
14. **SALES TAX EXEMPTION:** The State of Utah's sales and use tax exemption number is E33399. The tangible personal property or services being purchased are being paid from State funds and used in the exercise of that entity's essential functions. If the items being purchased are construction materials, they will be converted into real property by employees of this government entity, unless otherwise stated in the contract.
15. **WARRANTY:** The contractor agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The contractor (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah apply to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the contractor warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable

for any special purposes that the State has relied on the contractor's skill or judgment to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The contractor will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the contractor in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the contractor will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.

16. **PUBLIC INFORMATION:** Contractor agrees that the contract will be a public document, and may be available for distribution, and Contractor gives the State express permission to make copies of the contract and/or of the response to the solicitation in accordance with the State of Utah Government Records Access and Management Act. The permission to make copies as noted will take precedence over any statements of confidentiality, proprietary information, copyright information, or similar notation.
17. **DELIVERY:** Unless otherwise specified in this contract, all deliveries will be F.O.B. destination with all transportation and handling charges paid by the Contractor. Responsibility and liability for loss or damage will remain with Contractor until final inspection and acceptance when responsibility will pass to the State except as to latent defects, fraud and Contractor's warranty obligations.
18. **ORDERING AND INVOICING:** All orders will be shipped promptly in accordance with the delivery schedule. The Contractor will promptly submit invoices (within 30 days of shipment or delivery of services) to the State. The State contract number and/or the agency purchase order number shall be listed on all invoices, freight tickets, and correspondence relating to the contract order. The prices paid by the State will be those prices listed in the contract. The State has the right to adjust or return any invoice reflecting incorrect pricing.
19. **PAYMENT:** Payments are normally made within 30 days following the date the order is delivered or the date a correct invoice is received, whichever is later. All payments to the Contractor will be remitted by mail unless paid by the State of Utah's Purchasing Card.
20. **PATENTS, COPYRIGHTS, ETC.:** The Contractor will release, indemnify and hold the State, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or un-copyrighted composition, secret process, patented or un-patented invention, article or appliance furnished or used in the performance of this contract.
21. **ASSIGNMENT/SUBCONTRACT:** Contractor will not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the State.
22. **DEFAULT AND REMEDIES:** Any of the following events will constitute cause for the State to declare Contractor in default of the contract: 1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this contract. The State will issue a written notice of default providing a ten (10) day period in which Contractor will have an opportunity to cure. Time allowed for cure will not diminish or eliminate Contractor's liability for damages. If the default remains, after Contractor has been provided the opportunity to cure, the State may do one or more of the following: 1. Exercise any remedy provided by law; 2. Terminate this contract and any related contracts or portions thereof; 3. Impose liquidated damages, if liquidated damages are listed in the contract; 4. Suspend Contractor from receiving future solicitations.
23. **FORCE MAJEURE:** Neither party to this contract will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. The State may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.
24. **PROCUREMENT ETHICS:** The Contractor understands that a person who is interested in any way in the sale of any supplies, services, construction, or insurance to the State of Utah is violating the law if the person gives or offers to give any compensation, gratuity, contribution, loan or reward, or any promise thereof to any person acting as a procurement officer on behalf of the State, or who in any official capacity participates in the procurement of such supplies, services, construction, or insurance, whether it is given for their own use or for the use or benefit of any other person or organization (63-56-73, Utah Code Annotated, 1953, as amended).
25. **CONFLICT OF TERMS:** Contractor Terms and Conditions that apply must be in writing and attached to the contract. No other Terms and Conditions will apply to this contract including terms listed or referenced on a Contractor's website, terms listed in a Contractor quotation/sales order, etc. In the event of any conflict in the contract terms and conditions, the order of precedence shall be: 1. State Standard Terms and Conditions; 2. State Special Terms and Conditions; 3. Contractor Terms and Conditions.

(Revision date: Nov 21, 2003)

STATE OF UTAH

STATE WIDE – CONTRACT

SIGN, ARROW BOARD, SOLAR/BATTERY POWERED, TRAILER MOUNTED
Class Code: 55081

PART I

GENERAL CLAUSES AND CONDITIONS

- 1 The equipment furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, and to be of quality workmanship and material. The Contractor represents that all equipment offered under this specification shall be new. USED, SHOPWORN, DEMONSTRATOR, PROTOTYPE, OR DISCONTINUED MODELS ARE NOT ACCEPTABLE.
- 2 The unit shall be completely assembled and adjusted, and all equipment including standard and supplemental equipment to be installed and the unit made ready for continuous operation upon delivery. All parts not specifically mentioned which are necessary for the unit to be complete and ready for operation or which are normally furnished as the vendor shall furnish standard equipment. All parts shall conform in strength, quality and workmanship to the accepted standards of the industry including paint. The unit provided shall meet or exceed all Federal and State of Utah safety, health, lighting and noise regulations and standards in effect and applicable to equipment furnished at the time of manufacture.
- 3 It is the intent of State of Utah to purchase goods, equipment and services having the least adverse environmental impact, within the constraints of statutory purchasing requirements, State of Utah need, availability, and sound economical considerations. Suggested changes and environmental enhancements for possible inclusion in future revisions of this specification are encouraged.
- 4 We encourage manufacturers to adopt the International Organization for Standardization (ISO) 9001-9004 standards, technically equivalent to the American National Standards Institute/American Society for Quality Control. Adopting and implementing these standards is considered beneficial to the manufacturer, State of Utah, and the environment. It is State of Utah's position that the total quality management concepts contained within these standards can result in reduced production costs, higher quality products, and more efficient use of energy and natural resources. Manufacturers should note that future revisions to this specification might require ISO certification.
- 5 Wherever in this document an item is defined by using a trade name or name and number of a manufacture or vendor, it is intended that the words, "or approved equal" apply. A reference, in these specifications to a particular product is made only for purpose of clarification of the minimum acceptable standards. "Or approved equal" means any other brand that is equal in use, quality, economy and performance to the brand listed.
- 6 Measurements are in the English system.

PART II: DETAIL SPECIFICATIONS

1. **SCOPE:** This specification describes a flashing arrow board sign panel, solar/battery powered, electrically lighted, trailer mounted meeting the United States Department of Transportation (DOT) requirements. The unit will be used to alert drivers of the presence of work zones or of a hazard ahead and for channeling vehicles into clear lanes. The unit shall consist of an electrically lighted flashing arrow sign panel, a self-contained power source, solar panel(s) and an apparatus for raising and lowering the panel. All components to be mounted on a trailer suitable for safe towing at highway speeds up to 70 MPH in stowed position. Units exhibiting fishtailing or other anomalies when in tow will be rejected. Units furnished to this specification shall meet or exceed the following requirements.
2. **DESIGN:** The unit to be designed so that the batteries operate the sign panel and the solar panel(s) recharge the batteries.
3. **SIGN PANEL** to be constructed of aluminum alloy panels with reinforced edges and internal ribs to add lateral strength (aluminum inner ribbing), and rubber grommets to prevent punching of panel face or back of arrow board. Sign panel to be completely weather resistant, permanently painted or coated with a flat black finish, rectangular in shape, minimum 96 inches (2.4 m) wide and 48 inches (1.2 m) high. **The sign panel to be equipped with the following as a minimum:**
 - a. **Taper** from top to bottom of 3 degree to help reduce glare.
 - b. **24 characters** arranged in a 3 X 8 matrix.
 - i. **Character size** to 13.0" wide X 18.0" high.
 - ii. **Pixel** to be four LEDs and 5" - wide X 7" - high, total = 35 per character.
 - c. **Light emitting diode (LED) assemblies; hereafter referred to as **lamps****, in the panel of the most recent technology, which shall form the shaft and arrowhead.
 - d. **Lamps** to be Amber in color. The yellow shall fit in the Commission Internationale de L'Eclairage (CIE) color box to be perceived as Amber (color range of 589.5 – 592nm).
 - i. Lamp to be high efficiency light emitting diodes, AllnGap auto-insertion type.
 - ii. Lamps to be screw type, push-on or auto-insertion type. If push-on type lamps are furnished, there to be a means to secure the lamps and wiring leads to the sign to prevent separation due to vibration during travel or operation. Lamps or panels to be easily replaceable. Lamps to be equipped with a minimum 180-degree upper hood or visor to prevent sun washout.
 - iii. Lamp intensity to be such that on a clear night or sunny day, a driver to be able to visibly recognize a legible flashing arrow from a minimum distance of one mile Minimum, dimming to be 50 percent of full-rated lamp voltage. Lamps shall flash at a rate not less than 25 or more than 40 flashes per minute, with a minimum lamp "on time" of 50 percent of the cycle for the flashing mode and

equal intervals of 25 percent for each sequential phase. Arrow board displays shall include:

- iv. Left arrow.
 - v. Right arrow.
 - vi. Double arrow.
 - vii. Four-corner signal.
 - viii. Sequential chevron.
 - ix. Quick messaging – easy to program a new message.
 - x. Text alignment selectable from left, center.
- e. A mode indicator lamp on the reverse side of the panel to indicate that the sign is operating and which message is being displayed.
4. **SIGN PANEL MOUNTING HEIGHT** in the raised position shall be a minimum of seven feet above the roadway as measured from the road surface to the bottom of the sign panel. In the upright position, top of the sign panel shall be 11 feet from ground level, and withstand winds up to 60 miles per hour from any direction without overturning. The sign panel shall be equipped with the following as a minimum:
- a. **Sign panel**, mounted and braced, upright steel structures constructed of heavy gauge square tubing, securely mounted and designed to prevent damage from vibration and shock when the unit is in transit.
 - b. **Locking device**, which shall lock the panel in both the upright rearward-facing operating position and the horizontal facedown stowed position. Panel shall be adequately supported when towed at road speeds up to 70 MPH in the upright and stowed positions.
 - c. **Hydraulic power device**, power by 12 Vdc motor to raise and gravity lower to return the sign panel. Mechanical hand pump to be included to raise and lower the sign if batteries go dead. One person shall easily accomplish the raising and lowering of the sign panel.
5. **CIRCUITRY AND CONTROLS** to be a controller box or panel completely solid state and properly fused and enclosed in a weatherproof, lockable, protective steel box (lock and keys shall be furnished). Wiring shall be enclosed in weatherproof looms or conduit or be jacketed cable routed to minimize chafing and interference with moving parts.
- a. PC computer to be high efficiency micro-controller, solid-state circuitry (No mechanical relays.) All keyed and labeled for easy serviceability.
 - b. Connectors, if used, shall be metal, MILSPEC plug type or heavy-duty, self-extinguishing thermoplastic plug type. Slit-type loom outside weatherproof enclosures and modification to vehicle electrical system to install or operate the sign is prohibited. **Electrical system shall be equipped with the following:**

- i. **Electrical switches** to select each of the operating modes shall be labeled and sufficiently protected to permit all-weather operation and to discourage vandalism.
 - ii. **Photoelectric device** which automatically increases or decreases operating lamp intensity as needed according to ambient light level conditions to insure maximum visual effectiveness at a minimum of one mile. Minimum dimming shall be 50 percent of lamp voltage. Nighttime operations shall meet legible visibility requirements while not blinding oncoming motorists. A manual override of the automatic dimming device shall be provided to enable daytime photometric testing.
 - iii. **Voltage disconnect (LVD)** shall be provided to protect batteries from damage due to over discharge. A low voltage-warning lamp (red) or meter located in a highly visible location shall be furnished to warn user when battery condition reaches a critical level. System shall automatically shut down at LVD (80 percent battery discharge) and illuminate a second low voltage indicator lamp, located inside the controller box.
 - iv. **Reverse polarity** and over current protected.
 - v. **Fuses** to be automotive style for battery and solar panel circuits.
 - vi. **Battery condition indicator** gauge lighted, to monitor battery bank voltage/condition.
 - vii. **Lamp intensity** regulator, which holds the lamp intensity output constant with varying battery voltage, and maintains lamp brightness and minimum legible visibility, to a point just above LVD.
 - viii. **Lamp Voltage Regulation:** The effective voltage at the lamp shall not exceed the manufacturer's rated voltage.
6. **BATTERIES:** Unit shall be equipped with manufacturer's recommended number of batteries, providing enough voltage to meet all previous requirements including, but not limited to visibility. Batteries shall be deep cycling type, grouped/paralleled for maximum output, and have the capacity to power the unit with no sunlight, 24 hours per day, for a minimum 21 days at approximately 78°F (26°C), in the single arrow mode. Battery wiring shall incorporate an in-line fuse for short circuit protection.
7. **SOLAR PANELS** shall generate sufficient power to enable system to operate continuously, and be self-sufficient under optimum sun conditions (May through October) to meet all of the above requirements. The minimum, independent performance time, in poor weather conditions is 21 days operation.
8. **TRAILER** to be equipped with a single-axle trailer with minimum 2,000 pound capacity, electrically welded steel type, designed for towing at highway speeds of up to 70 MPH. Trailer shall have steel fenders constructed of minimum 16-gauge formed steel and enclosed, with leaf, coil, or torsion-spring type suspension. Wheels shall be steel automotive type.

9. **Tires** to be P205/75R15 or P215/75R15 steel belted radials with highway treads having a minimum 4 ply rating (load range B). Implement tires are not acceptable.
10. **Towing tongue** of sufficient length to provide at least 48 inches clearance between the hitch and the foremost part of the trailer or arrow board when the arrow board is in the horizontal position. Tongue shall be made of 2" X 3" X 3/16" wall tubing minimum, continuously welded from rear of trailer forward and at cross members, sufficiently reinforced by A-frame side supports of the same dimensions, equipped with a 2 inch coupler, compatible with a 2 inch ball hitch and a 2,000 pound capacity, swing away, screw-type jack.
- a. Trailer shall have a minimum of two trailer-mounted (tongue side) swing away, top-screw type, minimum 2,000 pound capacity jack stands and two adjustable stabilizer bars (rear side) for stabilizing and leveling the unit when static.
 - b. **Solar panel(s)**, and all components shall be securely mounted to the trailer and designed so the weight on the towing tongue shall be ten percent of the gross trailer weight.
 - c. Trailer shall be equipped with two bearing protectors, spring loaded, with O-ring seals, one piece housing, and an indicator showing level of lubrication, with a means to externally lubricate.

EXAMPLE: Red Eye Bearing Protector, Model No. 129001-C092, or equal.

- d. **SAFETY CHAINS** to be equipped with two safety chains, complete with safety integral hooks and spring-type hook latches, which shall be attached to trailer tongue. Each chain shall be of sufficient length for the coupled towing truck and trailer to make full turns without binding. The throat of the safety hooks shall accommodate a 3"D ring.
 - e. Each chain shall be of sufficient length for crossing beneath the tongue to form a cradle that shall prevent the tongue from coming into contact with the road surface if the trailer hitch becomes disconnected.
 - f. Welds shall be cleaned, ground to a smooth finish and painted.
11. **LIGHTING:** The rear of the trailer shall be equipped with a red tail lamp, a red stop lamp, a turn indicator and a red reflector on each side. The lamps and/or reflectors may be incorporated, and shall be screw or bolt mounted at the same level and as widely spaced laterally as practicable. The lamps shall be located at a height of not less than 15" nor more 72" above the ground. These lamps shall be mounted at the rear and shall be protected from damage while loading or unloading equipment.
- 11.1 **Amber clearance lamps** to be installed at the front of the trailer with two and two red clearance lamps the rear of the trailer. The clearance lamps shall, so far as practicable, be mounted on the permanent structure of the trailer in such a manner as to indicate the extreme height and width of the trailer.
- 11.2 Each side of the trailer shall be equipped with an amber side marker lamp mounted at the front and a red marker lamp mounted at the rear. These side marker lamps shall be mounted so as to indicate the extreme height and length of the trailer.

- 11.3 **Clearance** and side marker lamps may be mounted in combination.
- 11.4 **Reflector** to be installed on each side of the trailer, amber at the front and a red reflector at the rear.
- 11.5 A **license-plate holder** with a white lamp for illuminating the license plate shall be provided.
- 11.6 7-way connector shall be provided on the trailer's nose for connection of the trailer lighting to the lighting system of the towing vehicle. The connector wiring shall be in accordance with the American Trucking Association's Maintenance Council recommended practice (RP) 107 as detailed in the current Vehicle Maintenance Reporting Standards (VMRS) 34-003. Each wire shall be labeled as to its function.
- 11.7 **Reflectors** shall be housed type with 2 - screws or 2 - bolt type mounting. Stick-on type reflectors are not acceptable.
- 11.8 **The lamps** and/or reflectors may be incorporated, and shall be screw or bolt mounted armored type. Snap-in type lenses and stick-on type reflectors are not acceptable. Sealed beam, LED, recessed, or rubber-mounted lamps are acceptable if used in conjunction with a modular wiring harness.
- 11.9 **Electrical wiring** shall be insulated and enclosed in a fibrous loom, plastic loom or flexible conduit for protection from external damage and short circuits. Wiring shall be securely fastened at sufficient intervals to prevent sagging and insure clearance of mechanical parts. Routing of the wiring through the sub-frame, deck, etc. shall not interfere with the normal operation and use or present a safety hazard. A sealed, splice-free modular wiring harness is acceptable. Rubber grommets shall be used wherever wires or harness pass through metal.
- 11.10 **Electrical circuit** shall be equipped with an automatic automotive style circuit breaker for protection against electrical overloads.
- 12 **SERIAL NUMBER:** The trailer serial number shall be welded to or stamped into the left front portion of the frame so that it is clearly legible.
- 13 **SAFETY PLAQUES OR DECALS:** Product safety plaques or decals shall be furnished and affixed at the operator's station and at any hazardous area. The safety plaques or decals shall describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. Permanent plaques are preferred to decals. Type, size and location of product safety plaques or decals shall be in accordance with current ANSI Z535.4.
- 14 **PAINTING:** The unit shall be painted an approved lead free paint meeting except for rubber and those metallic accessories or fixtures constructed of rust-resistant or plated material not normally painted. The manufacturer's standard color is permitted, however the legible visibility requirement remains the same. All surfaces of each trailer, including cross members, shall be cleaned to remove all dirt, oil, grease, rust, slag, scale, and other foreign matter prior to priming. All welds ground to a smooth finish. The cleaned and prepared surfaces shall be given a shop coat of primer compatible with the finish coat in order to ensure proper adhesion of the finish coat and then thoroughly dried. Finally, a finish coat of first quality air-drying paint with a minimum dry film thickness of four-mil shall be applied.

- 15 **MANUAL(S):** One copy each of an illustrated parts book, operator's manual and service manual shall be delivered with each unit. These shall include, at minimum, all appropriate manuals for the solar panels, sign panel, trailer assembly, controls, and electrical system.
- 15.1 Additionally, one set of complete wiring and electronic schematics shall be delivered with each unit. All schematics shall be clear, legible and indicate the location of each component. The manuals and schematics supplied shall provide complete and comprehensive information on all equipment, equipment components and accessories, as supplied to comply with this specification. If changes, modifications, additions or alterations of any kind are made on the equipment, the vendor shall provide blueprints, line drawings and descriptive text sufficient to allow one of average skill in general mechanics to diagnose, repair and maintain the equipment and all components.
- 15.2 On equipment assembled from manufactured components, the parts book shall show the manufacturer of each part and all cross-referencing between the vendor and the manufacturers.
- 15.3 The operator's manual shall include detailed instructions on the proper method of operation of the unit. Necessary warnings and safety precautions shall be included.
- 15.4 **INSTRUCTION ON SAFETY, OPERATION AND PREVENTIVE MAINTENANCE:** The vendor shall provide the services of a competent factory trained technician thoroughly trained in the use and operation of the unit a minimum of 2 hours, instruction on safety, operation and preventive maintenance of the unit. These services shall be provided after the unit has been delivered and is ready for operation but prior to payment.
- 15.4.1 **Operator training** will be designed to familiarize personnel with operation characteristic and operator checks of the new equipment, to include: Agenda to be supplied with successful bidder for:
- 15.4.2 Operating procedures per operating manual.
- 15.4.3 Towing or transporting equipment.
- 15.4.4 Braking techniques when towing.
- 15.4.5 Break-in procedures.
- 15.4.6 Equipment limitations.
- 15.4.7 Operator maintenance.
- 15.4.8 Before operations checks and lubrication.
- 15.4.9 Safety.
- 15.4.10 Cold & Hot weather operations.
- 15.4.11 Jump-Charging.
- 15.4.12 Welding on equipment.

15.4.13 Instruments and controls.

15.4.14 Gauge interpretation.

15.4.15 Equipment operation, Do's and Don't.

15.5 **Mechanic training** to be designed to familiarize service and repair technicians with service checks and techniques, adjustments, and any unique requirements associated with the entire unit.

16 **PARTS AND SERVICE:** The manufacturer of the equipment furnished shall have an authorized dealer within the state of Utah. The authorized dealer shall have factory-trained personnel available for warranty repairs and the performance of service. The dealer shall also maintain an inventory of high-usage parts and a quick source for low-usage parts.

Part III: OPTIONAL EQUIPMENT

OPTION NO. 1:

ADJUSTABLE PINTLE-EYE COUPLER: In lieu of the ball-and socket hitch as identified in Part II, Para. 10, the towing tongue shall be equipped with a three inch pintle-eye lunette to accommodate standard pintle hooks, complete with minimum 3/16-inch safety chain with hooks for attaching to the towing vehicle. Hitch height shall be adjustable between 24 and 36 inches, 2-inch increments. Pintle-eye shall be compatible with the Holland Model 760 pintle hitch.

OPTION NO. 2:

EXTRA CONTROL BOX ASSEMBLY: Shall be furnished in addition to the control box assembly described in Part II, 5, above. This is for the purpose of replacing the control box assembly in the event of failure to avoid interrupting operations.

OPTION No. 3:

EXTRA SET OF MANUALS: In addition to the manuals referenced in Part II, Para. 14, one complete set of operators, service, and parts manuals shall be provided at time of delivery.

OPTION NO. 4:

BATTERY RECHARGING SYSTEM: The unit shall have a battery recharging system with a standard utility power 120VAC battery charger, which is converted to 12VDC, with sufficient output (amperage) for 24 hour remote or in-house charging, and compatible with all requirements within this specification.

A solid state voltage regulator to prevent overcharging and gassing of batteries from solar panel output.

A weather resistant male 120 VAC receptacle with earth ground for recharging batteries with built-in charger.

OPTION NO. 5:

HOURLY METER: An electric quartz type, shock proof, totally sealed case, with readout up to 9,999.9 hours. Three screw or flush mount with system voltage range between 10-32V.

EXAMPLE: Hobbs Model 85001-02, or equal.

OPTION No. 6:

Cellular Modem Package: to allow the message to be monitored and have messages changed from a remote location away from the unit (office for example.) The user needs on IBM compatible computer with Microsoft software installed and a modem on the computer. One office computer can control unlimited messages. Price to included modem in message board.

OPTION No.7:

Software package for one IBM compatible computer to allow the message monitored and changes.

OPTION No. 8:

Full Matrix Operation to feature the projection of a variety panel sized graphics or pictorials applications.

OPTION No. 9:

Electric Trailer Brakes to be controlled by a controller installed in the tow vehicle. Controller need not be supplied.

PART IV: DELIVERY, ACCEPTANCE AND PAYMENT

1. **DATA SHEETS:** The attached data sheets should be completed and submitted in duplicate for informational purposes only.
2. **DELIVERY REQUIREMENTS:** Delivery of all equipment on this order to be completed within the number of days bid, as shown on the purchase order.
3. **ACCEPTANCE INSPECTION:** All equipment received is subject to acceptance inspection and performance testing upon receipt. Acceptance inspection and performance testing will not take more than five working days weather permitting. The Contractor will be notified within this time frame of any units not delivered in full compliance with the purchase order specifications. If any units are canceled for non-acceptance, the needed equipment may be purchased elsewhere and the vendor may be charged any additional increase in cost and handling.

PART IV: WARRANTY

- 1 **WARRANTY:** The unit of equipment to be warranted against all defects in material and workmanship for a period of not less than the period of the leased (if leased) or 24 months or 2,000 for full machine (if purchase), and shall cover 100 percent parts and labor for the unit.
- 2 **EXCLUSIONS:** State of Utah will assume the expense for replacement tires and tubes, tire repairs, lubricating oils, hydraulic fluids, greases, filters, fuel, antifreeze, batteries, lights, hoses, belts, cleaning and painting and other minor items normally consumed in day-to-day operations. State of Utah will assume responsibility for cost of repairs resulting from collision, theft, vandalism, operator negligence and/or acts of God.

3 **EQUIPMENT MAINTENANCE:** It is State of Utah's policy to maintain the equipment in accordance with the manufacturer's published recommendations.

3.1 **MINOR WARRANTY REPAIRS:** It is the intent of this warranty that the vendor performs minor warranty repairs; however, at State of Utah's option, warranty repairs deemed by State of Utah to be minor in nature may be performed by State of Utah at the vendor's expense. Parts required for repairs, which are to be made by State of Utah and obtained from the vendor at no cost to State of Utah, or from any commercial source with reimbursement to State of Utah. Only the actual time required for repairs will be reimbursed. Reimbursement by the vendor to State of Utah for the cost of warranty repairs will be computed as follows:

3.2 **Labor** for warranty repairs will be calculated at the composite rate for the mechanic in effect at the time of the warranty repairs. Labor rate will not exceed \$40.00 per hour. The time allowed for each repair will be determined by the manufacturer's standard time schedule. Manufacturer's time schedule to be furnished to the receiving district with the unit at the time of delivery (if available). If a manufacturer's time schedule is not available, the actual time for repairs, as noted above, will be used.

3.3 **MAJOR WARRANTY REPAIRS:** When major warranty repairs are required, State of Utah will notify a representative of the vendor's Utah dealer by telephone at the location and the telephone number designated by the vendor on the data sheet as the point of contact. Major warranty repair work for the purpose of this specification means major repairs to the engine, transmission, hydraulic system, drive train, frame assembly and major repairs to any other component(s) of the unit. Diagnosis of the actual repairs required will be the responsibility of the vendor. The vendor or his authorized representative may perform the repair work.

3.4 **Response Time:** Warranty repair action to begin within two working days after notification is made to the vendor for need of warranty repairs. A representative of the vendor's Utah dealer will be notified by telephone at the location and telephone number designated by the vendor on the data sheet as the point of contact. The vendor shall notify State of Utah immediately of any changes in this location and/or telephone number. The warranty repairs should be completed and the unit returned (or picked up by State of Utah at the vendor's expense as outlined above) to State of Utah within a reasonable period of time. For the purpose of this specification eight working days is defined as a reasonable period of time. Excessive delays incurred for the performance of warranty repairs by the vendor may adversely affect the vendor's status as a qualified bidder.

ATTACHMENT C: PRICING
Trailer Mounted, Solar Powered, Message Boards

1. Trailer Mounted, Solar powered Message Board as per Attachment B: \$16,901.70 each.
2. Option #1: Adjustable Pintle-Eye Coupler. No Extra Charge.
3. Option #2: Radar showing on-coming traffic speed. \$1,099.00 per unit.
4. Option #3: Extra set of manuals, to include Operator's, Service and Parts manuals. \$35.00 per set.
5. Option #4: Digital Cellular Modem Package. \$1,099.00 per unit.
6. Option #5: Trailer Brakes:
 - 6.1 Electrical trailer brakes: UDOT will supply and install the controller in tow vehicle. \$438.75 per unit.
 - 6.2 Surge Brakes: \$535.20 per unit.